

# ANALYSIS

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## MUST WE ALWAYS THINK IN PROPOSITIONS?

By CELIA FREMLIN

THIS is an age of revolutions in logic. Yet it is a surprising and disappointing fact that the revolutions so far seem to have achieved so little. Wittgenstein, Carnap, Tarski—all seem at first to hold out hopes of a really exciting and far-reaching clarification of our thoughts. But one after the other such systems are shown to be valid only insofar as they are so much restricted as to be inapplicable to the thoughts we most want clarified.

Such alternative logic would seem then to be insignificant—mere mental gymnastics. Many have thus concluded that our present logical system is in fact fundamental, and that no important alterations can ever be made in it. If then some class of concepts—e.g. those of ethics—are found to be unanalysable within this system, then those concepts are nonsensical—"meta-physical pseudo-concepts."

I want to show that this may not be so; that our present system may be in an important sense arbitrary, and that alternative systems have so far seemed insignificant only because they are being wrongly applied. They are new systems applied within the old narrow field alone, and thus their potentialities are suppressed. The narrow field of which I speak is that of propositions and the propositional form. This then is my thesis: The apparent insignificance of logical innovations, and the deadlock which philosophers seem to have reached on many important problems—notably those of metaphysics and ethics—is due at least in part to the assumption that the propositional form (by which I mean the form  $aRb$ , when  $R$  stands for a finite

verb) is the fundamental and only form of thought. So far as I know, no explicit defence of this assumption is ever given. It is taken for granted that anything which cannot be analysed by and into propositions is therefore "unanalysable" and hence, on some interpretations, senseless. The possibility of non-propositional forms of thought (such as are exhibited in a simple and crude form in commands and exclamations) is totally ignored.

Let us examine the situation more closely.

A logical system as such seems to demand four ingredients. These are :

1. Correlators. In our system these are exemplified by "implies" "is compatible with" "is equivalent to" etc.
2. Property-values. In our system these are truth and falsehood.
3. Logical Constants. In our system these are exemplified by "not", "and", "or" etc.
4. Material on which to operate. In our system, propositions.

Now these four ingredients of a logic may be regarded as variables of which special values (e.g. truth and falsehood, relations of implication etc.) will give the special logic to which we are accustomed. There is thus at least a theoretical possibility of constructing other logics by assigning other values to some or all of the four variables. This is in effect what the revolutionary logicians have been doing, though they do not state it explicitly. So far they have concentrated almost entirely on making alterations in one or other or the first two—the correlators and the property-values. Such experiments are indeed interesting and valuable ; but I want to show that alterations in either or both of these, *without* a corresponding alteration in the material—i.e. propositions and the propositional form—can never produce the far-reaching results that they might otherwise do. For it can be shown that the only logic that can be usefully applied *within the propositional form* is in fact our present one, or one differing only in trifling ways. Thus it is only when they shall be freed from arbitrary restrictions to the propositional form that the new logics will be able to show their real potentialities. What these potentialities may be seems to me to be one of the most exciting questions with which philosophy has ever been faced. But before discussing this it would be well to show just how it is that the new systems are inhibited by the propositional form.

Now, by far the most important method of creating "alternative" logics is that of assigning values other than "implies" etc. to the correlator-variable. This has been attempted, for instance, by Weiss, with his fourteen definitions of implication based on Wittgenstien's truth-function schema. It seems however that his claims for these "alternative" logics can be refuted. As Nelson has pointed out, correlators are self-defining (as reflexive, transitive etc.) in terms of their use in the system. Thus one cannot define them arbitrarily and then use them as so defined, because the definition *consists* in the use, and in nothing else. Thus, given the completely uninterpreted symbol " $p \supset q$ ", " $\supset$ " will inexorably define itself in the system according to its use there.

All this is perfectly true. But we cannot conclude from it that our present definitions of correlators such as "implies" are the only possible ones. The fallacy lies in the fact that throughout the argument, though he speaks of " $p \supset q$ " (which can be expressed less misleadingly by the completely general symbol " $aRb$ ") as being uninterpreted, and hence a pure variable, he is not treating it as such at all. He is treating it as a *propositional* variable, whose range of values is limited to sentences of the propositional form. That is to say, he assumes that " $\supset$ " stands for a *finite* verb. Given this assumption his argument is valid, and our present logical system is to this extent inevitable. But if one no longer makes this arbitrary assumption (and I can see no reason for it but deeply ingrained habits of thought) then new and strange possibilities are opened up.  $R$  does indeed still define itself in terms of its use as transitive, non-symmetrical, etc. But we can no longer say that it has defined itself as "implies." It has defined itself as some correlator-variable of which implication is one of the values. Implication is in fact the *only propositional value* that satisfies the definition. Hence, so long as we restrict ourselves to the propositional form, the correlators of our present logic will appear ultimate.

Now, from the arbitrary assumption that  $aRb$  is a propositional form follows also the assumption that " $a$ " and " $b$ " stand for propositions. This is due to the fact that correlators in any system of logic must be "repetitive"; that is to say, they must be applicable to the kinds of entities that they themselves construct. Thus we can say, e.g. " $(p \text{ implies } q) \text{ implies } (q \text{ implies } p)$ "

$p$ )", because "implies" is a word that can be used intelligibly to relate one sentence with another. But we could not, for instance, use "is (at least) as heavy as" in the same way, although it has the same relational properties (non-symmetry, transitivity etc.) as "implies." For though it would be perfectly good sense to say " $p$  is as heavy as  $q$ ", where  $p$  and  $q$  are interpreted as material entities, we cannot go on to say " $(p$  is as heavy as  $q$ ) is as heavy as  $(q$  is as heavy as  $p)$ ", for the relation "as heavy as" is not repetitive; i.e. it cannot be applied to the kind of entities (propositions) which it itself constructs. Thus it cannot be used as a correlator in any significant system of logic.<sup>1</sup> Thus, given the expression " $(aRb).(bRc)R(aRc)$ ", if  $aRb$  is arbitrarily determined as a proposition, then  $a$  and  $b$  must also be propositions; otherwise  $R$  would not be repetitive and could form no part of a logical system.

Thus we see what Nelson has done. Propositional values have been assigned to all the variables in  $aRb$ , and hence it seems to be proved that our present logical system is ultimate. What has really been proved however is not this; but that it is the only *propositional* system that can be significantly applied to *propositions*. This is indeed an important conclusion to have established; but it leaves an exciting aspect of the question still open; namely, what are these other, non-propositional values, whose theoretical possibility seems undeniable? It may seem that such values, even if possible, are inconceivable by the human brain. But I think that to say this would be premature. For there are certain signs that we *do* sometimes think non-propositionally, but that when we do we do not call it thinking, and hence do not attempt logical analysis. More of this later however. Suffice it for the moment to point out that there is at least the bare possibility of a somewhat startling extension of the range of human thought and language.

The attempts to alter the property-values (truth and falsehood) are probably not so important. It has been shown fairly conclusively<sup>2</sup> that plain multi-valued systems are not going to effect any very far-reaching improvement. Much more promising at first sight seems the possibility of substituting radically *new* property-values for truth and falsehood. This is, in effect,

<sup>1</sup> This argument might be applied against some of the P-rules of Carnap's Language II.

<sup>2</sup> e.g. by Weinberg, "An Examination of Logical Positivism."

what has been done by both Wittgenstein and Carnap—Wittgenstein by defining truth in terms of one-one correspondence with atomic facts and Carnap, more evidently, by defining it in terms of status within a language-system. His property-values are thus validity and contra-validity within a system.

Now both these logicians have produced internally coherent systems, and it might thus be imagined that an alteration of property-values on a more ambitious scale might yield even more important results. There is however a difficulty, insuperable within a propositional system. This will become clear if we take an extreme example. Let us then take "About alligators" and "Not about alligators" as substitutes for "True" and "False."

Now it might seem that a formally correct logic (though of course an unimportant one) could be built up on these two property-values; but in fact if we try to do this we shall soon find ourselves in difficulties. Let us try, for instance, to state the relation in the alligator-logic that corresponds to " $p \supset \sim q$ " in our ordinary one. Now this expression means " $p$  is true implies  $q$  is not true," and it might be thought that all we have to do is to substitute for this " $p$  is about alligators implies  $q$  is not about alligators." This however is cheating; for although the property-values of  $p$  and  $q$  are now "about alligators" and "not about alligators", the property-values of the correlator "implies" itself are still blatantly truth and falsehood. And if we try to alter *these* property-values in the same way, the whole proposition becomes unstateable. And even if it was stateable, we should still be faced by the fact that "implies" and "does not imply" would have precisely the same significance in terms of this logic: i.e. they would both be not about alligators. This of course is an absurd example; but exactly the same argument holds good of Carnap's virtual substitution of "validity within the system" for truth. For in the same way, if we try to say " $p$  is valid within the system implies  $q$  is not valid within the system" we are tacitly giving "implies" the old property-values, while giving the new ones to  $p$  and  $q$ . To put it generally; if the system is to be significant, the property-values must be such as to be applicable to both correlators and material. And if the correlators and the material are of propositional form the *only* property-values that fulfil these conditions are truth and falsehood.

Here again then we come up against the same stumbling block to progress—the propositional form.

There remains to be considered one further possibility—that of changing the logical constants of the system. This possibility has been very little exploited; perhaps only by that small school of anarchists who at intervals rouse the worst passions of the philosophical world by announcing that they intend to “break” the law of contradiction. Now, this peculiarly misleading statement of the issue covers an idea which is full of possibilities; but here again these possibilities are smothered by their restriction to the propositional form. This can easily be seen as follows.

The logical constants, like the correlators, are self-defining in terms of their use in the system. Thus we cannot take “not” and define it as this, that, or the other at will, and then proceed to use it in our system. For if we do it will merely redefine itself in terms of the use we are making of it; and we will invariably find that it has redefined itself as “not”. The reason for this is obvious. The symbol “ $\sim$ ” can in essentials be defined quite generally by its use in the expression “ $aRb \equiv \sim. \sim. aRb$ ”. If the terms of the expression are taken as pure variables, then the symbol  $\sim$  is defined as some kind of self-reversing process. What this self-reversing process may be is quite undefined; it is a variable, of which negation is one of the values. If, however,  $aRb$  is *not* taken as a pure variable, but as a propositional form, then  $\sim$  is no longer a variable whose range of application is all self-reversing processes, but is determined as a particular value of this variable; namely, negation. For this is the only value which can be applied to propositions. Thus in this field too we see that the potentialities of a new logic are cramped and stifled by the restriction to the propositional form.

Thus the conclusion so far is this. Unless we can get away from the propositional form we can have no hope of any great widening of the scope and usefulness of logic; it has already reached its highest degree of perfection, and we must accept the limitations it imposes upon our thought and speech with what grace we can.

How can we avoid such defeatism? Is it possible that there is any way of escape from propositions?

Let us turn for a moment to the orthodox Logical Positivist attitude towards e.g. ethical sentences. Now, as is shown by Mr



Ayer, it follows from the principle of verifiability that sentences such as "Tolerance is a virtue," and "Stealing money is wrong" are not statements at all, but exclamations. Thus if I make one of these pseudo-statements, what I am really saying is something like "Tolerance—Hurrah!" or "Stealing money—Boo!" And of course an exclamation such as "Tolerance—Hurrah!" cannot be contradicted by "You don't approve of it" or "It makes people unhappy" or by any other proposition. It is, as Mr Ayer quite rightly points out, neither true nor false. So far we may follow him. He concludes by saying that, since this pseudo-proposition is neither true nor false, can be neither asserted nor denied, it is therefore meaningless. So at least I understand him.

What has happened is clear. Mr. Ayer has taken a perfectly intelligible exclamation, shown that it cannot be contradicted by a proposition nor analysed into propositions, and leaps to the conclusion that it is therefore meaningless. Yet it is just as reasonable to expect an exclamation to be analysable in terms of propositions as to expect a proposition to be analysable in terms of exclamations. To assume that, because two mutually exclusive language forms cannot be analysed into each other, therefore one of the forms (quite arbitrarily selected) is meaningless, is quite unjustifiable.

It is clear, I think, that exclamations (and commands) *have* got some meaning (i.e. they are symbols) and that this meaning cannot be analysed by propositions. Is it not then possible that we should be able to construct a *logic of exclamations*, within which exclamations (such as those of ethics if the Logical Positivists are right) could be discussed and analysed *in terms of exclamations*, and not of propositions? It may be argued that exclamatory thought, though it may exist, is not complex or highly developed enough to be susceptible of logical analysis. And this may be so. Doubtless exclamatory thought is in its infancy, and is at present inhibited from further growth by the supremacy of propositional thought. Surely then it is our business, if we find that important concepts such as those of ethics may be exclamatory, to develop this form of thinking, to draw its potentialities out into the light and see what can be done with them. If this can only be done (and not only with exclamations, which may be one of the less important forms of non-propositional thinking

but with commands, and with the possible other forms of non-propositional thought which may lie buried in our appreciation of art, humour, etc.), I cannot but feel that many of our problems would be astoundingly simplified; not only the problems of philosophy, but also those of science and everyday life.

The task before us then is to discover the logical (and hence linguistic) forms applicable to non-propositional thinking. We can approach the problem on two fronts; first by introspection of our ways of thinking (e.g. in the appreciation of art and humour) whenever these seem to be unanalysable in terms of propositions, and second by the more mechanical way of attempting to construct a formal non-propositional logic a priori. Both tasks will be difficult; but I see no reason why they should prove hopeless. And I feel convinced that, difficult or easy, it is a task that we must face, and face soon, if philosophy is to continue to take an important part in the development of human thought.

Perhaps an analogy will make clearer the way in which I conceive us to be at present embedded in a propositional bog.

Imagine a community which has not conceived of the processes of asserting and denying; that is to say, all they can do with their embryo propositions is to "entertain" them. Thus, instead of saying "The cat is black" or "Jones has not got red hair" they can only ejaculate "The cat's being black," and "Jones' not having red hair." Any attempts to express truth and falsehood in this language would automatically be nonsense. The philosophers of this community could not then state facts as true or false at all; they would have to indicate the "intuited" difference between the two kinds of facts in some other way. And doubtless they would adopt precisely the technique of the Logical Positivists to-day. Thus we should find the more enlightened among these philosophers making such ejaculations as "A triangle's having three sides—Hurrah!" and "Unicorns now eating Christmas pudding on Stonehenge—Boo!" And these philosophers would certainly teach (as ours do about ethics) that such boo and hurrah entertainments added nothing to the original entertainment, but were of purely psychological interest. All indications of truth and falsehood would be to them purely emotive, and without logical status.

Now we, with our powers of assertion and denial *within* our systems of language and logic, can both see and express what is



happening to this unfortunate entertainment-bound community. Is it not then conceivable that precisely the same thing may be happening to us on a higher plane? May it not be that there is some way of thinking which bears the same relation to our propositional assertion-denial way as this way bears to the mere entertainment way? This seems to be not only theoretically possible, but empirical evidence in favour of it is given by the fact that many concepts which we *know* to be meaningful seem either inexpressible or meaningless in terms of propositions.

Let us take another analogy.

Imagine a one-dimensional world—a straight line. The inhabitants of this world would have as their objects nothing but points, and the only things they could significantly predicate of the position of an object would be that it was at such and such a distance to the left of or to the right of some other point. Now if these inhabitants were able, very indistinctly, to conceive of the possibility of what we should call a two-dimensional world, they would have no means of either saying or thinking anything about it without, within their language system, saying or thinking nonsense. They would have to talk nonsense like "To the left of leftness," or "Some leftnesses are intenser than others," and so on. We should have, in fact, a body of one-dimensional Bradleys, jeered at by their contemporaries who, untroubled by any conception whatsoever of two dimensions, would never have felt this urge to talk nonsense.

It may be that something very like this is happening to us. At present we concern ourselves only with propositions (the points in the analogy) and thus we can only assert or deny them (predicate "is to the left of" or "is to the right of" in the analogy). And thus, when we have at the back of our minds conceptions to which assertion and denial cannot usefully be applied (i.e. which are not susceptible of the propositional form) we can only express them by talking nonsense. Just as the one-dimensional being, in trying to say something about a point outside his one dimension, would have to say that it was to the left of leftness, so certain philosophers of ours, when they want to speak of something to which propositional assertion cannot be applied, have to speak of it as a "higher form of reality" or some such nonsense.

There is only one way of escape; and that is to discover the

"super-propositional" form, of which the propositional form is merely one of the values. The correlator-variable of this super-propositional form I shall express, in loose accordance with the analogy above, as  $R^2$ . It is a variable of which the propositional  $R$  is one of the values. Thus the super-propositional form will be expressible by the symbol  $aR^2b$ ; which is to be interpreted as something at present inexpressible. It is a higher function, from which the familiar propositional form, together with hortatory, exclamatory, and other non-propositional forms about which at present we can only guess, may be derived. This super-propositional logic will of course have to obey the formal rules of logical systems as such; that is to say,  $R^2$  will have to be repetitive; and the property-values, whatever and however many they may be, must be such as are capable of being property-values of themselves. But once we have got away from the propositional form these restrictions will no longer operate as they do at present. The fact that  $R^2$  must be repetitive will no longer mean that we must restrict our ways of thinking to the few relations which are both applicable to propositions and are themselves of propositional form.  $R^2$  will of course be applicable to propositions among other things, but it will no longer be restricted to propositions. Again, it can of course be interpreted as a propositional form—that is to say, the propositional form  $aRb$  is one of its values. But it is certainly not the only, and probably not the most important value. The  $R^2$  logic will contain all the operations with which we are familiar at present. Thus we should have  $R^2$  implication defined by the expressions:

$$\begin{aligned} &aR^2a \\ &aR^2b.R^2.aR^2b. \\ &(aR^2b).(bR^2c).R^2.(aR^2c) \end{aligned}$$

etc.

These will define the higher implication-function from which, among other things, implication as we know it is derived.

The  $R^2$  logic will have as many values as there are ways of thinking, and one of the values will correspond to the propositional way which at present we regard as fundamental.

Only when this has been achieved will the other ways of thinking come into their own. At present they lie latent in our brains, stunted and overshadowed by propositions. Sometimes they break out in verbal forms, as in exclamations and com-

mands; sometimes they break out in what we describe as "Aesthetic feeling" or "Emotion." The latter is a useful word into which for centuries philosophers have telescoped a whole new world of thought, unnoticed and unexplored.

What will this new world be like? What shall we see when we have torn off these propositional blinkers, and broken through this curious, arbitrary structure which cramps the very working of our minds? Until we have tried we cannot tell.

## LAST WORDS TO MISS MACDONALD

By A. M. MACIVER

AFTER wearying the readers of *Analysis* for nine months with our differences, it seems that (on the most important points) Miss MacDonald and I must agree to go on differing. I am only sorry that she should still fail to see what I have been driving at.

Perhaps the root of this misunderstanding is the fact that my interest in the philosophy of language includes an amateur interest in philology and phonetics, to which Miss MacDonald seems to pay no attention. The beginning of our dispute was her assertion that the type-token distinction involves no reference to meaning. If this were so, then it could be recognised that two tokens were or were not of the same type even by someone who did not know how they were used to express meaning—that is, in what language they were, or even whether they were in a language at all. This seemed to me false, for reasons that are familiar to every philologist.

In interpreting any linguistic utterance we have to take account of the recurrences of something which we call 'the same sound'. But, in the strict qualitative sense, the same sound hardly ever recurs. Take for example vowel-sounds. These depend on factors (such as tongue-position and lip-reading) which are capable of varying continuously, so that the sound emitted on a particular occasion is seldom *exactly* like the sound emitted on any other occasion, even by the same speaker. When we say that two such 'sound-tokens' are 'the same sound', we mean simply that they are both qualitatively nearer to the same *norm* than they are to any other norm. The same applies, of course, to musical notes, but with the difference that here the norms are objectively fixed (certain combinations of sounds are for physical reasons consonant or dissonant, and two sounds are 'the same note' if they do not depart so far from the norm that dissonance is audible to the human ear), whereas in language the norms depend purely on usage and differ from one language to another. For example, standard spoken English recognises at least six "vowel-phonemes" (the vowel-sounds of the words *pat*, *pet*, *pit*, *pot*, *put* and *putt*), but Tagalog (a language spoken in the Philippines) recognises only three (conventionally represented

by *a*, *i* and *u*).<sup>1</sup> But this does not mean that sounds do not occur in Tagalog which would be regarded by an Englishman as 'the *e* of *pet*' or 'the *o* of *pot*'; only two 'sound-tokens', both of which would be regarded by an English-speaker as 'the *e* of *pet*', might be regarded by a speaker of Tagalog one as an *i* and the other as an *a*; they both fall nearer to the English '*e*' norm than to any other English norm, but one falls nearer to the Tagalog '*i*' norm and the other to the Tagalog '*a*' norm. (So things which are 'the same sound' in English are 'different sounds' in Tagalog.)

But, if we ask what is meant by saying that standard spoken English has at least six 'vowel-phonemes' (actually it has more) while Tagalog has only three, the answer is that English has at least six norms, and Tagalog only three, such that, if two word-tokens differed only in that a sound in the one was nearer to one norm and the corresponding sound in the other nearer to another norm (e.g. tokens of the English types *pet* and *pit* respectively), they would have different meanings attached to them.<sup>2</sup>

The same principles apply to writing as well as to speech, and I tried to develop the above argument with reference to writing<sup>3</sup>, in the hope of avoiding philological and phonetic technicality and reference to unfamiliar languages. But I seem thereby to have made it obscure what I was driving at—at least, Miss MacDonald completely neglects this argument—and as a result the discussion seems to me to have been mostly on inessentials.

With what Miss MacDonald says about types 'having' meaning and meaning 'being attached to' tokens<sup>4</sup> I think I can agree (except that I am doubtful whether the cross on Ali Baba's door had 'meaning attached to it' in the same sense in which meaning is attached to a linguistic token; I am tempted to call it simply a 'distinguishing mark'—after all, the thief, instead of putting a cross on the door, might simply have noticed that it was the only green door in the street or something of that sort;

<sup>1</sup> L. Bloomfield, *Lanagage*, p. 105.

<sup>2</sup> Bloomfield defines the *phoneme* as 'the minimum unit of distinctive sound-feature' (op. cit., p. 79), and *distinctive* (in this usage) as 'connected with meanings and essential to communication' (p. 77).

<sup>3</sup> 'Rejoinder to Miss MacDonald', *Analysis* 4.6, pp. 84-6.

<sup>4</sup> 'Further Reply to Mr. MacIver', *Analysis* 5.1, p. 12. This distinction may originate, as Miss MacDonald says, in Professor Moore's lectures, but of course it has also appeared in print in Professor Stebbing's presidential address 'Sounds, Shapes and Words' (Aristotelian Society suppl. vol. xiv, p. 11).

but I think this is probably not really a good point). Indeed I should go further and say that a meaning is only 'attached' to a linguistic token *because* it is of a type which 'has' that meaning. This does not contradict what I have just been arguing. (I admit that, when I wrote my first article, I underrated the complexity of the question and said things inconsistent with this, but I think that in my second article I covered my tracks.) The point is that, whenever someone uses a token to convey, or understands it as conveying, a meaning, he makes use of the fact that *any* member of a certain speech-community would attach that meaning to *any* token related to this one in certain ways (which we call 'being of the same type' in the language of that community), though it is only the usage of the community, for the purpose of expressing meaning, which makes these particular relations important (which is why I say that the type-token distinction involves reference to meaning).

Our dispute about the uses of the word 'word' arose out of this. It seemed to me that some philosophers (and, if I may mention great names without giving offence, I was actually thinking of Professor Stebbing<sup>8</sup>) have supposed that we could say 'This is of the same type as that' (or 'of a different type from that') whenever we can say 'This is the same word as that' (or 'a different word from that'); and I thought it worth while to point out that there are so many senses of 'being the same word' that this would make the simple term 'type' too imprecise for use as a technical term. I am glad to find that, on this minor point, Miss MacDonald seems now to agree with me.

What did I mean by 'ostensive *defnientia*'? Perhaps the term was not happily chosen, but I thought I had made it clear what I meant. Miss MacDonald had contrasted 'ostensive definition' with 'verbal definition' in a way which suggested that ostensive definition did not involve the use of words. I pointed out that what we call 'an ostensive definition' is a form of words (such as 'By *red* I mean the colour of that pillar-box'), though the use of it is only effective if something is at the same time pointed to (or otherwise indicated) which is perceptible to the hearer (or perceived by him in the past), and this thing I

<sup>8</sup> As in the sentence: 'It seems to me that in order to answer the question what a type-word is, it is necessary to reformulate the question as follows: What does the word "word" mean when it is so used that it would make sense to say "This is the same word as that"?' (op. cit., pp. 8-9) and the discussion which follows (especially p. 12).



called the 'ostensive *definiens*'. Anyhow I expressly said that I quite understood what Miss MacDonald meant, and was only (in a parenthesis) criticising her way of putting it.

On the analogy between writing and musical notation.\* It is, of course, a question whether writing is to be regarded as directly representative of speech, and only indirectly of what speech represents, or whether speech and writing are to be regarded as parallel representations of the same thing. I should say that it was a matter of use, and that people who read and write but seldom use it in the first way, while people who read and write frequently use it in the second.<sup>7</sup> The first relation of writing to speech is exactly analogous to that of musical notation to musical execution, but the second is not. (It is true that there are people who read scores in bed, but even they presumably pass from the printed notes to auditory images of the music as it would sound when played; they do not pass, as some of us do when reading Gibbon, from the printed words, not to auditory images of the spoken words, but direct to images of events in Byzantine history.)

I was a little puzzled by the beginning of the last paragraph on page 15.<sup>8</sup> There Miss MacDonald *seems* to say that, in the sentences 'The word 'theism' has two different meanings' and 'The word 'chortle' now means a peculiar kind of laugh', 'word' is equivalent to 'token-word'. All the dispute so far has been on the use of the word 'type', but this made me wonder if I ought not to ask what Miss MacDonald understands by 'token'. However I don't believe that she *can* mean what she seems to be saying. Common sense and the whole tenour of her argument suggest that she has only passed very abruptly and without warning from one use of the word 'word' to another.

I ought to thank Miss MacDonald for making it a lot clearer to me how what I believe ought to be expressed. But I wish I had been able to convince her that it is true.

University of Leeds, November 1937.

\* Miss MacDonald's 'Further Reply', pp. 14-5.

<sup>7</sup> Unless they are such strong audiles that they cannot read without hearing every word in their "mind's ear".

<sup>8</sup> Of *Analysis* 5.1 ('Further Reply').

## MEETING OF THE ANALYSIS SOCIETY

30 APRIL—1 MAY, 1938

The second annual meeting of the Analysis Society will take place on Saturday and Sunday, 30 April and 1 May: by the invitation of Professor L. S. Stebbing, the meeting will be held either at 27 Belsize Park, London, N.W.3, or at Bedford College, Regent's Park, London, N.W.1. The general subject for discussion will be :

'Logical problems of dialectical materialism'.

Papers to be presented will if possible be published in *Analysis* in time to reach readers before the meeting. The provisional programme is as follows.

Saturday: 2.0 p.m., Business meeting, followed by discussion;  
4.30, Tea; 5.0, Discussion; 7.30, Dinner;  
8.30, Open meeting.

Sunday: 10.30 a.m., Discussion; 1.30 p.m., Lunch;  
2.30, Discussion; 4.30, Tea; 5.0, Discussion.

It is suggested that one open meeting should be held, on the ground that the subject is of considerable interest to many who are not philosophers. The above programme is open to alteration. Final and more detailed arrangements as to programme and place of meeting will be announced later, either in *Analysis* or by circular.

Should the Society meet at Bedford College, most meals will be taken in Baker Street, a few minutes' walk from the college. Details will be announced later.

Meetings of the Analysis Society, other than open meetings, are only open to members of the Society. All those who wish to attend the annual meeting are asked to send the accompanying registration form to the Secretary of the Analysis Society, C. H. Whiteley, The University, Birmingham 3, as soon as possible, and in any case so as to arrive not later than 23 April. Members of the Society should enclose 1s. as registration fee: subscribers to *Analysis* who are not members of the Society should enclose 5s. 6d. (1s. registration fee, 4s. 6d. balance of year's subscription to Analysis Society): those who are not subscribers should enclose 11s. 6d. (1s. registration fee, 10s. 6d. year's subscription to Analysis Society). Further information about the Analysis Society will be found on the cover of *Analysis*.

